

10/009070

JC12 Rec'd PCT/PTO 07 DEC 2001

Practitioner's Docket No. U 013765-3

CHAPTER I

IN THE UNITED STATES ELECTED OFFICE (EO/US)

PCT/JP01/03127	11 APRIL 2001	11 APRIL 2000
INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED

INK COMPOSITION

TITLE OF INVENTION

1. Hiroshi ITO; 2. Kazuaki WATANABE; 3. Tsuyoshi SANO;
4. Bunji ISHIMOTO; 5. Kiyohiko TAKEMOTO

APPLICANT(S)

Box PCT

Assistant Commissioner for Patents

Washington, D.C. 20231

ATTENTION: EO/US

PRELIMINARY AMENDMENT

Please amend the above identified application as follows:

IN THE CLAIMS :

Please amend claims 3-7, 9, 11, 16-23, 25-26, 28, and 31 as follows:

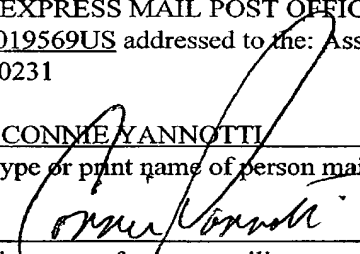
3. (Amended) The ink composition according to claim 1, wherein the glycol monoether is glycol monobutyl ether.

CERTIFICATE UNDER 37 1.10

I hereby certify that this paper is being deposited with the United States Postal Service on this date DECEMBER 7, 2001 in an envelope as "EXPRESS MAIL POST OFFICE TO ADDRESSEE" Mailing Label Number EV011019569US addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231

CONNIE YANNOTTI

(Type or print name of person mailing paper)


(Signature of person mailing paper)

NOTE: Each paper or fee referred to as enclosed herein has the number of the "EXPRESS MAIL" mailing label place thereon prior to mailing 37 CFR 1.16(b).

4. (Amended) The ink composition according to claim 1, wherein the 1,2-alkanediol has 6 to 8 carbon atoms.

5. (Amended) The ink composition according to claim 1, wherein the glycol monoether is glycol monobutyl ether, the 1,2-alkanediol is 1,2-hexanediol, and the content of the 1,2-hexanediol is less than 2.5% by weight based on the total amount of the ink composition.

6. (Amended) The ink composition according to claim 1, wherein the colorant is a water-soluble dye.

7. (Amended) The ink composition according to claim 1, wherein the colorant is a pigment and which further comprises a dispersant for dispersing the pigment.

9. (Amended) The ink composition according to claim 1, which further comprises a nonionic surfactant.

11. (Amended) An ink jet recording method comprising the steps of: ejecting droplets of an ink composition; and depositing the droplets onto a recording medium to perform printing, wherein the ink composition is one according to claim 1.

16. (Amended) The ink composition according to claim 13, wherein the 1,2-alkanediol is selected from the group consisting of 1,2-butanediol, 1,2-pentanediol, 1,2-hexanediol, 1,2-heptanediol, and a mixture thereof.

17. (Amended) The ink composition according to claim 13, which contains, as the 1,2-alkanediol, 3 to 10% by weight of 1,2-butanediol.

18. (Amended) The ink composition according to claim 13, which contains, as the 1,2-alkanediol, 3 to 10% by weight of 1,2-pentanediol.

19. (Amended) The ink composition according to claim 13, which contains, as the 1,2-alkanediol, 1 to 6% by weight of 1,2-hexanediol.

20. (Amended) The ink composition according to claim 13, which contains, as the 1,2-alkanediol, 0.5 to 3% by weight of 1,2-heptanediol.

21. (Amended) The ink composition according to claim 16, wherein the block polymer resin as the dispersant has an acid value of 100 to 200.

22. (Amended) The ink composition according to claim 16, wherein the dispersant is a block copolymer represented by AB, ABA, or ABC in which:

A is a hydrophilic block;

B is a hydrophobic block and contains at least 30% by weight, based on the weight of the B, of a non-acryl monomer selected from the group consisting of

(1) $\text{CH}_2=\text{CH}-\text{R}$

wherein R represents a $\text{C}_6 - \text{C}_{20}$ substituted or unsubstituted alkyl, aryl, aralkyl, or alkaryl group,

(2) $\text{CH}_2=\text{CH}-\text{OR}^1$

wherein R^1 represents a $\text{C}_3 - \text{C}_{20}$ substituted or unsubstituted alkyl, aryl, aralkyl, or alkaryl group,

(3) $\text{CH}_2-\text{CH}-\text{O}-\text{C}(\text{O})-\text{R}^1$

wherein R^1 is as defined in (2), and

(4) $\text{CH}_2=\text{CH}-\text{NR}^2\text{R}^3$

wherein R^2 and R^3 are each independently selected from the group containing of H and $\text{C}_3 - \text{C}_{20}$ substituted or unsubstituted alkyl, aryl, aralkyl, or alkaryl group, provided that R^2 and R^3 do not simultaneously represent H; and

C may be any desired block.

23. (Amended) The ink composition according to claim 13, which further comprises a nonionic surfactant.

25. (Amended) The ink composition according to claim 23, wherein the nonionic surfactant is contained in an amount of 0.1 to 5% by weight based on the total amount of the ink composition.

26. (Amended) The ink composition according to claim 13, which further comprises a penetrating agent.

28. (Amended) The ink composition according to claim 13, which further comprises 2-pyrrolidone.

29. (Amended) The ink composition according to claim 13, which is used in an ink jet recording method.

31. (Amended) An ink jet recording method comprising the steps of: ejecting droplets of an ink composition; and depositing the droplets onto a recording medium to perform printing, the ink composition being one according to claim 13.

Remarks

The above amendatory action is taken solely for the purpose of avoiding claim fees that would otherwise accrue due to the presence of multiple dependent claims.

Respectfully submitted,



WILLIAM R. EVANS
LADAS & PARRY
26 WEST 61ST STREET
NEW YORK, NEW YORK 10023
REG.NO.25,858 (212)708-1930

10,009070

531 00000000 07 DEC 2001

MARKED UP COPY

3. (Amended) The ink composition according to claim 1 [or 2], wherein the glycol monoether is glycol monobutyl ether.
4. (Amended) The ink composition according to [any one of claims 1 to 3] claim 1, wherein the 1,2-alkanediol has 6 to 8 carbon atoms.
5. (Amended) The ink composition according to [any one of claims 1 to 4] claim 1, wherein the glycol monoether is glycol monobutyl ether, the 1,2-alkanediol is 1,2-hexanediol, and the content of the 1,2-hexanediol is less than 2.5% by weight based on the total amount of the ink composition.
6. (Amended) The ink composition according to [any one of claims 1 to 5] claim 1, wherein the colorant is a water-soluble dye.
7. (Amended) The ink composition according to [any one of claims 1 to 5] claim 1, wherein the colorant is a pigment and which further comprises a dispersant for dispersing the pigment.
9. (Amended) The ink composition according to [any one of claims 1 to 8] claim 1, which further comprises a nonionic surfactant.
11. (Amended) An ink jet recording method comprising the steps of: ejecting droplets of an ink composition; and depositing the droplets onto a recording medium to perform printing, wherein the ink composition is one according to [any one of claims 1 to 10] claim 1.
16. (Amended) The ink composition according to [any one of claims 13 to 15] claim 13, wherein the 1,2-alkanediol is selected from the group consisting of 1,2-butanediol, 1,2-pentanediol, 1,2-hexanediol, 1,2-heptanediol, and a mixture thereof.

17. (Amended) The ink composition according to [any one of claims 13 to 16] claim 13, which contains, as the 1,2-alkanediol, 3 to 10% by weight of 1,2-butanediol.

18. (Amended) The ink composition according to [any one of claims 13 to 16] claim 13, which contains, as the 1,2-alkanediol, 3 to 10% by weight of 1,2-pentanediol.

19. (Amended) The ink composition according to [any one of claims 13 to 16] claim 13, which contains, as the 1,2-alkanediol, 1 to 6% by weight of 1,2-hexanediol.

20. (Amended) The ink composition according to [any one of claims 13 to 16] claim 13, which contains, as the 1,2-alkanediol, 0.5 to 3% by weight of 1,2-heptanediol.

21. (Amended) The ink composition according to [any one of claims 16 to 20] claim 16, wherein the block polymer resin as the dispersant has an acid value of 100 to 200.

22. (Amended) The ink composition according to [any one of claims 16 to 21] claim 16, wherein the dispersant is a block copolymer represented by AB, ABA, or ABC in which:

A is a hydrophilic block;

B is a hydrophobic block and contains at least 30% by weight, based on the weight of the B, of a non-acryl monomer selected from the group consisting of

(1) $\text{CH}_2=\text{CH}-\text{R}$

wherein R represents a $\text{C}_6 - \text{C}_{20}$ substituted or unsubstituted alkyl, aryl, aralkyl, or alkaryl group,

(2) $\text{CH}_2=\text{CH}-\text{OR}^1$

wherein R^1 represents a $\text{C}_3 - \text{C}_{20}$ substituted or unsubstituted alkyl, aryl, aralkyl, or alkaryl group,

(3) $\text{CH}_2-\text{CH}-\text{O}-\text{C}(\text{O})-\text{R}^1$

wherein R^1 is as defined in (2), and

(4) $\text{CH}_2=\text{CH}-\text{NR}^2\text{R}^3$

wherein R^2 and R^3 are each independently selected from the group containing of H and

C₃ – C₂₀ substituted or unsubstituted alkyl, aryl, aralkyl, or alkaryl group, provided that R² and R³ do not simultaneously represent H; and

C may be any desired block.

23. (Amended) The ink composition according to [any one of claims 13 to 22] claim 13, which further comprises a nonionic surfactant.

25. (Amended) The ink composition according to claim 23 [or 24], wherein the nonionic surfactant is contained in an amount of 0.1 to 5% by weight based on the total amount of the ink composition.

26. (Amended) The ink composition according to [any one of claims 13 to 25] claim 13, which further comprises a penetrating agent.

28. (Amended) The ink composition according to [any one of claims 13 to 27] claim 13, which further comprises 2-pyrrolidone.

29. (Amended) The ink composition according to [any one of claims 13 to 28] claim 13, which is used in an ink jet recording method.

31. (Amended) An ink jet recording method comprising the steps of: ejecting droplets of an ink composition; and depositing the droplets onto a recording medium to perform printing, the ink composition being one according to [any one of claims 13 to 30] claim 13.